Exercise 2: External Blink



Purpose: Repeat Exercise 1 using an external LED.

Instructions

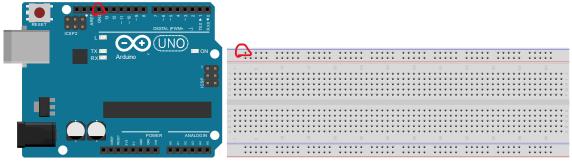
- 1. Unplug your Arduino Uno from the PC.
- 2. Locate a red LED from your kit.



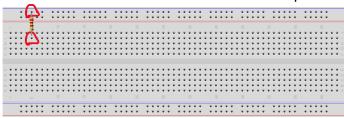
3. Locate a 330Ω resistor from your kit.



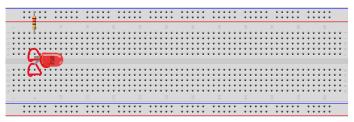
4. Connect **one** black wire to **one** pin in the rail at the top of your breadboard from **one** GND pin on the Arduino Uno.



- 5. Bend the ends of the resistor so it makes a "U".
- 6. Place **one** end of the resistor in the GND top rail and the other in a column pin.



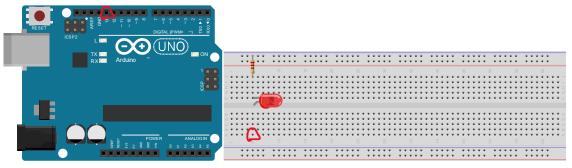
7. Place the **short** end of the LED below the resistor and the **long** end in the south end of the breadboard.



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8. Connect a coloured wire from **pin 13** of the Arduino Uno to a pin below the LED.



- 9. Connect the Arduino Uno to the PC and repeat the first Exercise.
- 10. Verify the onboard LED "L" and the external LED turn on and off together.